

In accordance with 37 CFR §1.121, please substitute for original claims 1, 4, 5 and 10, the following rewritten versions of the claims, as amended. The changes are shown explicitly in the attached "Version with Markings to Show Changes Made."

Sub D1

18. (New) A method of modulating neuronal activity, comprising administering a neuroactive peptide in an amount effective for modulating neuronal activity to a mammal in need thereof, wherein said neuroactive peptide comprises the amino acid sequence:

Leu-Val-Val-Tyr-Pro-Trp-Thr-Gln-Arg-Phe, (SEQ ID NO: 1), and wherein said neuroactive peptide modulates at least one biological activity selected from the group consisting of modifying learning, modifying behavior, vasoactive effects, dilation of cerebral arteries, increase in renal blood flow, increase in stereotype behavior, facilitating memory retrieval, neurite modeling and alleviation of the effects of spinal cord injury.

19. (New) The method of claim 18, wherein said neuronal activity is selected from the group consisting of motor neuron activity, cholinergic neuron activity and neuronal development.

20. (New) The method of claim 18, in which the mammal is a human.

C<sup>1</sup>  
21. (New) The method of claim 18, wherein the peptide is administered as a composition further comprising a pharmaceutically acceptable carrier.

Sub D2

22. (New) The method of claim 18, which is a prophylactic method.

23. (New) The method of claim 18, which is a therapeutic method.

24. (New) The method of claim 18, wherein the peptide is administered intracerebrally.

25. (New) A method of treating a disease or condition associated with abnormal neuronal activity, comprising administering to a mammal in need of modulating neuronal activity according to a method of claim 18, wherein the peptide is administered in an amount effective for anti-disease or condition.